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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/618,741	07/18/2000	Thomas M. Hartnett	07206-118001	8640
51503	7590	08/18/2006	EXAMINER	
RAYTHEON COMPANY c/o DALY, CROWLEY, MOFFORD & DURKEE, LLP 354A TURNPIKE STREET SUITE 301A CANTON, MA 02021-2714			HOFFMANN, JOHN M	
			ART UNIT	PAPER NUMBER
			1731	
DATE MAILED: 08/18/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/618,741	HARTNETT ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	John Hoffmann	1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 29 June 2006.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 8, 10-13 and 32-83 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 8, 10-13 and 32-83 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All
  - b) Some \*
  - c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____.
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____.

**DETAILED ACTION**

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 8, 10-11, 13 and 32-57 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

***Double Patenting***

Applicant is advised that should claim 33 be found allowable, claim 38 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim.

See MPEP § 706.03(k).

***Claim Objections***

Claims 58, 60 and 76 are objected to because of the following informalities:

**From MPEP 608.01 Form of Claims**

Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation, 37 CFR 1.75(i).

There may be plural indentations to further segregate subcombinations or related steps.

The claims lack the indents.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 8, 10-11, 13 and 32-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire 4686070 in view of Serpek 1030929.

See how the reference were applied in prior Office actions.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maguire in view of Serpek as applied to claim 11 above, and further in view of Abstract of JP403023269A or Dodds 5925584.

See how these references were applied in the previous rejections – for example that of April 6, 2003.

Claims 8, 10-11, 13 and 32-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Prior Art Admission (hereinafter 'APAA') in the paragraph spanning pages 1-2 of the specification, alone or in view of Serpek 1030929.

The APAA discloses the invention as claimed, except that it indicates that the process was only known as a batch process.

It would have been obvious to convert the process to a continuous process for its known advantages.

**From MPEP 2144.04**

**E. Making Continuous**

In re Dilnot, 319 F.2d 188, 138 USPQ 248 (CCPA 1963) (Claim directed to a

method of producing a cementitious structure wherein a stable air foam is introduced into a slurry of cementitious material differed from the prior art only in requiring the addition of the foam to be continuous. The court held the claimed continuous operation would have been obvious in light of the batch process of the prior art.).

A rotary kiln – such as shown in Serpek is a conventional way: Material is continuously fed into a furnace at a temperature (page 2, lines 10-11), and material is continuously removed. It would have been obvious to keep the furnace/chamber at a constant temperature – because if it were not constant it would not be continuous.

\*

### ***Response to Arguments***

Applicant's arguments filed 29 June 2006 have been fully considered but they are not persuasive.

Applicant's request for an interview is tentatively granted. Applicant should now indicate a date and time.

Regarding claim 32: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a temperature of 1700-1900C during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

\*

Regarding claim 34: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 39: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 36: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 38: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a temperature of 1700-1900C during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of In re Dilnot, such is an obvious modification.

Regarding claim 41: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of In re Dilnot, such is an obvious modification.

Regarding claim 37: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of In re Dilnot, such is an obvious modification.

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Regarding claim 53: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 57: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 58: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 60: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

Regarding claim 76: It is argued that the combination of references does not teach making the oxynitride by reacting the reactants with a chamber having a constant temperature during conversion. Examiner disagrees. Using a continuous process would inherently require that the chamber would be kept at a constant pressure. Applicant apparently no longer disputes that Applicant merely converted a batch process into a continuous process. Thus it is deemed that Applicant concedes such. In view of *In re Dilnot*, such is an obvious modification.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

\* A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

\* Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Hoffmann whose telephone number is (571) 272 1191. The examiner can normally be reached on Monday through Friday, 7:00- 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steve Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

John Hoffmann  
Primary Examiner  
Art Unit 1731

8-16-06

jmh